

The usage of WeChat to promote academic publishing in China: A case study on Chinese Laser Press

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Abstract

- WeChat is one of the most popular social media applications in China and is widely used by publishers to promote their journals and activities.
- The Chinese Laser Press (CLP) has four WeChat accounts; approximately 1 million reads were recorded in 2018.
- The most influential WeChat account of the CLP had almost 43,000 subscribers at the end of 2019.
- WeChat is a successful tool for connecting journals with readers and can increase the visibility of the journals both within China and elsewhere.
- Connecting with researchers via WeChat is helping CLP maintain relations with researchers throughout their career.

Introduction

Various social media applications, including Facebook and Twitter, are widely used on a global scale to promote academic publishing (Widmer et al., 2019). However, in China, Weibo and

WeChat are the social media applications that are widely used to promote academic publishing. WeChat is particularly popular; it was developed and released by Tencent in 2011 and has become one of the most popular social media applications in China (Tian, 2019).

Many academic publishers, such as China Science Press and Nature Research, have started their official WeChat accounts and have received subscriptions from a huge number of readers owing to the large number of users, convenience of communication, and versatile publishing styles. According to a survey (Yang & Li, 2019), 3,977 messages were published via 23 WeChat accounts of Chinese sci-tech journals, and 1.8 million reads were recorded between April and June 2018. Furthermore, in accordance with their Chinese counterparts,

international publishers, such as Springer Nature, Wiley, and American Chemistry Society, have also started their official WeChat accounts.

Several studies have investigated the usage of WeChat in academic publishing since its invention. Some of the research topics that have been studied include the profit model of the official WeChat accounts of the sci-tech journals, measures to increase the influence of the academic journals, and strategies for designing the official WeChat accounts of the sci-tech journals (Xu, 2017; Yang & Li, 2019; Zhang, Li, & Ge, 2016).

Chinese Laser Press (CLP), founded by the Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences, and the Chinese Optical Society, publishes eight journals in the optics field and hosts several academic conferences every year. CLP has started four WeChat accounts owing to the importance of WeChat in promoting journals, conferences, and other activities (Yin, Deng, Wang, Shi, & Yang, 2014). The roadmap of the CLP WeChat account is presented in Table 1. In this study, we summarize the operation of the CLP WeChat accounts and their promotion effects on the work of CLP.

CLP WeChat accounts

CLP has four WeChat accounts, that is, Chinese Laser, High Power Laser Science and Engineering (HPLSE), Scientific Writing, and Ioptics. Each account has different aims and scopes, number of subscribers, number of posts, and average number of readers.

The basic data are presented in Table 2. Chinese Laser is the official CLP account that focuses on CLP journals, conferences, and events and reports the research progress and events in the optics community. The HPLSE account focuses on a specific area, that is, high-power laser, and reports the global progress with respect to science and engineering in this field. The Ioptics account focuses on news in the entire optics community within and beyond CLP. It provides a platform for readers to exchange information, for example, regarding recruitment of graduate students, postdoctoral researchers, and academic staff or release of new products and conference schedules. The Scientific Writing account mainly helps the authors to prepare their submissions.

- **Chinese Laser**

Chinese Laser is the first WeChat account of CLP; it was created in 2013 and currently has more than 40,000 subscribers. The main columns of this account include journal article promotion, CLP news, five-minute optics (video), and top 10 optical breakthroughs selection. The total number of posts and average number of readers with respect to each category are presented in Table 3.

CLP publishes eight academic journals, with approximately 200 articles being published every month. The main task of the Chinese Laser account is to promote the high-quality papers published in the journals, including cover papers, editors' pick papers, review papers, and special issues compiled by the guest editors.

In 2018, 77 messages were published, attracting 1,300 readers on average; the visibility of the articles was also considerably improved. Posts by famous authors and posts including popular keywords, such as two-dimensional material, lidar, and metasurface, received more reads than those received by other posts.

The number of readers may be further increased when the authors share their posts via the Moments feature. Moments of WeChat is a collection of messages released by a user that typically comprises photos uploaded by the user and transferred articles published by the WeChat public accounts. The Moments

section is only visible to some of the user's friends and can be commented upon by them. Promoted articles are considered to be of higher quality when compared with other articles; hence, they will receive a larger number of interactions such as reads and downloads. The extent to which the WeChat posts contribute to the number of reads and downloads or the citation frequency of articles is still under investigation.

The CLP news column includes news about CLP journals, conferences, and editors. The posts published via WeChat accounts can reach larger audiences quickly when compared with the traditional ways of releasing news via printed journals and websites, and more reads can be achieved when the news is shared via the Moments feature. Announcements about new journals from CLP and its partner received the largest number of reads in 2018, indicating the interest of readers in CLP publishing events. Updates on the journal impact factors and appointments of new editors-in-chief are also popular among the readers. In 2018, 42 messages were published in the CLP news column, with the average number of readers per message being 1,845.

TABLE 1 The roadmap of the CLP WeChat accounts.

Year	Progress
2013	Creation of the <i>Chinese Laser</i> account
2015	The first post was viewed by 5,000 readers
2016	The first post was viewed by 10,000 readers
2017	Creation of the <i>Scientific Writing</i> account Launch of the <i>five-minute optics</i> mini-video column on the <i>Chinese Laser</i> account
2018	Creation of the <i>High Power Laser Science and Engineering</i> account
2019	Creation of the <i>loptics</i> account

TABLE 2 Total number of subscribers and posts and average number of readers of the WeChat accounts of CLP.

Account	Number of subscribers at the end of 2019	Number of posts in 2018	Average number of readers per posting in 2018
Chinese Laser	42,953	446	2,690
High Power Laser Science and Engineering	2,334	37	1,476
Scientific Writing	2,288	36	420
loptics	4,458	—	—

Mini-videos are popular on social media and among the research community. Many journals encourage authors to introduce their articles via mini-videos. The five-minute optics column includes mini-videos featuring authors (often senior professors) explaining the concepts of optics or summarizing their research in 5 min. Usually, the interviewee is an author of an article published in a CLP journal or a speaker of a CLP-sponsored conference. The five-minute optics column receives a larger number of

reads compared to that received by the remaining columns because videos are easier to understand than a written message reporting the research results of a scientific study. In 2018, 12 videos were published, with the average number of views per video being 3,600.

China's top 10 optical breakthroughs selection is an awarding activity of CLP. Twenty articles are selected as China's top 10 optical breakthroughs every year. They are divided into two categories, that is, fundamental research and applied research. The qualified articles with respect to the concerned year are recommended by the authors and others, and the

recommendations are published on WeChat. In 2018, 94 messages were published, with the average number of reads per article being 1,800. This selection is very popular among the optics community of China, and it has become an honour for a research group to gain such an award. China's top 10 optical breakthroughs release of 2017 received 20,000 reads on WeChat within a few days.

TABLE 3 Total number of posts and average number of readers for different categories within the *Chinese Laser* WeChat account.

Column	Number of posts in 2018	Average number of readers in 2018
<i>Journal article promotion</i>	77	1,300
<i>CLP news</i>	42	1,845
<i>Five-minute optics</i>	12	3,600
<i>Top 10 optical breakthroughs selection</i>	79	1,800

In addition to message publishing, a multifunctional menu has been developed to meet the demands of readers with respect to the following three aspects: resource, service, and recommendation. Figure 1 shows the messages published on December 16, 2019; this menu is located at the bottom of the WeChat interface. The resource section includes information about CLP journals, latest and special issue articles, article writing training, and calls for papers. The service section mainly includes customized query and submission status check for CLP journals, whereas the recommendation section includes a message catalogue, most read messages in a month, the latest news, and searches on the CLP WeChat Chinese Laser account. In 2018, the menu function was used by 306,509 readers 426,603



FIGURE 1 Interface of the WeChat account and the messages published on December 16, 2019.

- High Power Laser Science and Engineering

HPLSE specializes in optics. CLP publishes a journal titled HPLSE and runs a conference with the same name. This account promotes the HPLSE journal and conference and reports the progress in the subject area of high-power lasers. The HPLSE account was started on June 22, 2018 when the journal's first impact factor was released by the Journal Citation Reports. The messages in this account are divided into four columns, that is, journal article, news, perspective, and other items (Fig. 2).

Owing to the impact of the account, a WeChat sub-group containing more than 400 members has been established, where the members can share their research progress, conference schedules, and graduate student recruitment information. CLP has gained extensive influence in the field of high-power lasers because of the journal, conference, WeChat account, and subgroup

- Scientific Writing account

Many programmes on writing skills and submission procedures have been developed by the publishers to help the authors improve the quality of their submissions. CLP has started the Scientific Writing account to help young authors understand how to prepare a submission, conduct a peer review, and improve their academic communication skills. This account includes the following three main columns: how to write an article, look for writing mistakes,

and ask the editor.

The how to write an article column is based on a book titled How to Write a Good Scientific Paper written by Chris A. Marck and published by SPIE. After obtaining permission from the copyright owner, CLP adapted the book and published the chapters on WeChat. Ten messages were published in this column before August 31, 2019, providing readers with detailed instructions on writing language and style, article structure and organization, and other scientific writing aspects. This column is recommended to the authors of all the CLP journals.

The look for writing mistakes column features quizzes; they cite a paragraph from an article and list a certain number of mistakes, including spelling and grammatical errors. The readers are required to identify the mistakes. The readers providing accurate answers for an entire season, typically featuring eight quizzes, will receive a gift such as a USB stick with the CLP logo. Two seasons were completed in the previous 2 years, with approximately 100 people completing the quizzes and 20% of them receiving gifts.

The ask the editor column publishes the answers of the editors (mostly copyeditors) to the questions posted by authors or readers. In addition to the authors and readers of the CLP journal, many copyeditors of other journals also subscribe to the account and raise questions with respect to the problems that they encounter during their daily work.

- Ioptics

Because more and more messages are waiting to be published, CLP began a new WeChat account named Ioptics on February 20, 2019, to reduce the number of messages waiting to be published on the Chinese Laser account. Compared with Chinese Laser, the new account covers a wider range of topics. It reports the research progress of the CLP and the journals of other publishers; furthermore, it releases recruitment information obtained from the research groups and companies to help graduates begin their career.

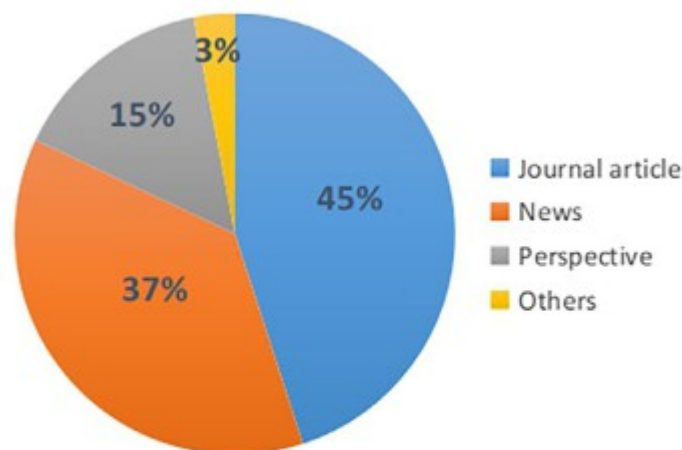


FIGURE 2 Columns and their content shares in the *High Power Laser Science and Engineering* account.

Discussion and Future

- **It is never too late start the WeChat official account for a Publisher**

WeChat was invented in 2011, a large number of WeChat accounts have been established, and it is never too late for a publisher to start its WeChat official account, considering that the WeChat can improve the visibility of a journal on the social media. As a multi-functional platform, a publisher can develop menu and mini program for journal promotion and author or reviewer training and run its WeChat store to sell its products on WeChat. Researchers in China have been accustomed to WeChat to reach new information and communicate with peers. Based on the large number of authors and readers in China, many international publishers, such as Taylor Francis, Nature, Wiley and MDPI, start their WeChat official accounts. It is impossible to start a WeChat account for every journal for a publisher with many journals, and a WeChat account can cover the related topic of several journals.

- **The popularity of an account lies in its content**

There is a significant difference between starting a WeChat account and running an influential WeChat account. Building content is the essential part of running a WeChat account. The WeChat content may be related to journal articles; however, it should not duplicate the journal articles. It is more appropriate to summarize a 10-page article in 1,500 words to publish on WeChat. There are many ways of preparing articles for WeChat; for example, perspectives, interviews, and videos are convenient for mobile reading. In addition to adapting journal articles, the WeChat editors often publish important news, including the announcement of a Nobel Prize and analysis of the progress of science and technology based on the material in journal papers.

- **WeChat accounts should be focused to enhance their influence**

When a publisher operates several WeChat accounts, each account must be unique; otherwise, the readers will be confused and not know which account is the most suitable for them. Let us consider Chinese Laser and Ioptics as an example. The scope of these two accounts overlaps in some readers' eyes. Before the announcement of Ioptics, the Chinese Laser account included a wide range of different content, such as optics news, journal publishing list, and CLP events. Some messages received thousands of reads, whereas others were read only by a few people, despite all of them being carefully prepared. To better focus the account, we started treating it as an official CLP account rather than a platform for the entire optics community. Thus, only information closely related to CLP is now published on the Chinese Laser account, whereas Ioptics publishes a wider range of information, for example, progress in optics research, conferences, and graduate recruitment. After these changes, the number of messages on the Chinese Laser account has reduced, but the average number of reads per message has considerably increased, and the number of subscribers has also increased to 42,953 by December 31, 2019.

Managing a WeChat account takes effort

Considerable effort has to be devoted by the CLP staff to run the WeChat accounts. Fortunately, the cooperation of different departments guarantees work efficiency. In particular, the new media department manages all the accounts, designs covers, recruits articles, interviews speakers, releases news, and arranges promotion, whereas the journal departments write news related to journals and contact the article authors to prepare research news. Furthermore, other departments prepare material for the WeChat accounts according to their core areas of expertise; for example, many messages published on the Scientific Writing account originate from the production centre

Conclusions

Even though an additional team and continuous investments are required to operate the WeChat accounts, they are now an indispensable part of the CLP work. CLP has maintained many years of successful relations with many researchers in the optics field since their graduation or early career stage. The publishers and editors can quickly receive enquiries and answer them in an

appropriate time period owing to the convenience of WeChat communication. 'Big data' is a term that is frequently mentioned in the publishing industry; even though it is important, it is not more important than contacting researchers and listening to their opinions on an individual basis. The number of WeChat users based outside China is increasing; this is

significantly contributing to the internationalization of the CLP journals and conferences.

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